Commonwealth of Kentucky
Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

AIR QUALITY PERMIT

Permittee Name:	**Century Aluminum of Kentucky LLC**
Mailing Address:	**Box 500, Hawesville, Kentucky 42398**
Source Name:	**Same as above**
Mailing Address:	
Source Location:	**1627 State Route 271 North, Hancock, Kentucky**
Review Type:	**PSD, Title V**
Permit Number:	**V-01-019**
Log Number:	**50138 (F067)**
Application Complete Date:	**February 16, 1997**
KYEIS ID #:	**21-091-00004**
SIC Code:	**3334**
Region:	**Owensboro Regional Office** **3032 Alvey Park Drive, Suite 700** **Owensboro, Kentucky 42303**
County:	**Hancock**
Issuance Date:	**June 20, 2003**
Expiration Date:	**June 20, 2008**

John S. Lyons, Director
Division for Air Quality

TABLE OF CONTENTS

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application, which was determined to be complete on February 16, 1997, the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in the 401 KAR 52:020, Title V permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

Century Aluminum of Kentucky LLC, and the adjacent Southwire Company rod and cable mill, AFS # 21-091-00009 are considered by the Kentucky Division for Air Quality and the US EPA Region 4 to be one source as defined in 401 KAR 51:017, Prevention of significant deterioration of air quality (PSD). Each will be issued an individual Title V permit and each is responsible and liable for their own violations unless there is a joint cause for the violations.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emission Group 1 **Table 1.0**

Emission Point	Construction/modification date	Description	Type of Control	Emission Limitations	Operation Limits / Month
45 [21(N213)]	1996	Metal Processing Unit	Baghouse	—	N/A
36 [24(N240)]	1994	Oxy Fuel Furnace	Baghouse	4.16 lb/hr	914.58 tons 3.5672 mmcf natural gas
33 [25(N250-33)]	1996	Shell Repair Building	—	2.34 lb/hr	0.42 tons welding rod
47 [(47(01))]	1999	Anode Dust Conveyance System	—	—	N/A
01 [(N01-01)]	1996	Vacuum Unload ore & coke	Baghouse	36.25 lb/hr	73000 tons coke/alumina
01 [(N02-01)]	1996	Vacuum Unload ore & coke	Baghouse	36.25 lb/hr	73000 tons coke/alumina
01 [(N03-*)]	1996	Vacuum Unload ore & coke	Baghouse	36.25 lb/hr	146000 tons coke/alumina
02 [(N10-03)]	1996	Railroad unload station	Baghouse	40.50 lb/hr	146000 tons coke/alumina
03 [(N20-03)]	1996	Tower 5 Transfer Point	Baghouse	40.50 lb/hr	146000 tons coke/alumina
03 [(N21-04)]	1996	Tower 1 Transfer Point	Baghouse	40.50 lb/hr	146000 tons coke/alumina
6 [05(N50-06)]	1996	Coke Silo No.1	Baghouse	40.50 lb/hr	146000 tons coke
6 [05(N51-06)]	1996	Coke Silo No. 2	Baghouse	40.50 lb/hr	146000 tons coke
11 [09(N95-11)]	1996	Baked Anode Cleaning	Baghouse	1.66 lb/hr	208.3 tons fluid coke
14 [10(N100-14)]	1996	Thimble Dust Hopper	Baghouse*	2.23 lb/hr	333.3 tons thimbles
14 [10(N101-14)]	1996	Thimble Tumbling Mills	Baghouse*	2.23 lb/hr	333.3 tons thimbles

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

16 [10(N102-16)]	**1996**	**Central Butt Cleaning**	**Baghouse**	**9.57 lb/hr**	**3500 tons bath**
15 [11(N110-15)]	**1996**	**Aluminum Melter and Baked Anode Sprayer**	**Cyclone**	**1.45 lb/hr**	**205 tons aluminum**
10 [13(N130-10)]	**1996**	**200 Ton Silo Pack Coke**	**Baghouse***	**1.66 lb/hr**	**208.3 tons fluid coke**
12 [13(N131-12)]	**1996**	**Packed Coke waste (20 ton silo)**	**Baghouse***	**1.66 lb/hr**	**208.3 tons fluid coke**
18 [14(N140-18(01))]	**1996**	**Anode Butt Primary Crusher #1 & #2**	**Baghouse**	**13.71 lb/hr**	**6250.9 tons anodes**
19 [14(N142-19(01)]	**1996**	**Anode Butt Secondary Crusher**	**Baghouse***	**13.71 lb/hr**	**6250.9 tons anodes**
19 [14(N143-19(02))]	**1996**	**Anode Butt Tertiary Crusher**	**Baghouse***	**13.71 lb/hr**	**6250.9 tons anodes**
14(N145-*)	**1996**	**Crushed Butt Storage Bin (2)**	**Baghouse**	**13.71 lb/hr**	**6250.9 tons anodes**
17 [14(N146-17)]	**1996**	**Anode Butt Shot Cleaner(2)**	**Baghouse**	**13.71 lb/hr**	**6250.9 tons anodes**
21 [15(N150-21)]	**1996**	**Anode Bar Stub Welding**	**—**	**2.34 lb/hr**	**1.1 ton welding rod**
22 [17(N170-22(01))]	**1996**	**Bath Reclaim Crusher**	**Baghouse***	**9.99 lb/hr**	**3750 tons reclaimed bath**
22 [17(N171-22(02))]	**1996**	**Bath Reclaim Screw Conveyor**	**Baghouse***	**9.99 lb/hr**	**3750 tons reclaimed bath**
22 [17(N172-22(03))]	**1996**	**Bath Reclaim Bucket Elevator**	**Baghouse***	**9.99 lb/hr**	**3750 tons reclaimed bath**
22 [17(N173-22(04))]	**1996**	**Bath Reclaim Conveyor**	**Baghouse***	**9.99 lb/hr**	**3750 tons reclaimed bath**
22 [17(N174-22(05))]	**1996**	**Bath Reclaim Conveyor**	**Baghouse**	**9.99 lb/hr**	**3750 tons reclaimed bath**

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

22 [17(N175-22(06))]	**1996**	**Bath Reclaim Screen**	**Baghouse***	**9.99 lb/hr**	**3750 tons reclaimed bath**
22 [17(N176-*)]	**1996**	**100 ton Silo**	**Baghouse***	**9.99 lb/hr**	**3750 tons reclaimed bath**
22 [17(N177)]	**1996**	**300 ton Silo**	**Baghouse***	**—**	**N/A**
22 [17(N179)]	**1996**	**7.5 ton Bath Reclaim Silo**	**Baghouse**	**—**	**N/A**
33 [26(N250-33)]	**1996**	**Spent Potliner Building**	**Baghouse**	**3.56 lb/hr**	**625 tons spent potliner**
38 [30(N300) 38]	**1996**	**6 Alumina Storage Facilities**	**Baghouse**	**41.94 lb/hr**	**Combined 37950 tons of alumina**
47 [47(02)]	**1999**	**Anode Dust Storage Silo**	**Baghouse**	**2.34 lb/hr**	**N/A**

***Sources with a common control**

APPLICABLE REGULATIONS

401 KAR 59:010, New process operations

Self-imposed limitations supersedes the mass emission standards of 401 KAR 59:010.

1. **Operating Limitations:**

   Operational limits listed in the above table shall not be exceeded.

2. **Emission Limitations:**

   Pursuant to 401 KAR 59:010:

   a) Visible emissions shall not equal or exceed 20 percent opacity, as determined with Reference Method 9, Appendix A, 40 CFR 60.

   b) Hourly particulate emissions as measured by Reference Method 5 (if required), Appendix A, 40 CFR 60 averaged over the minimum specified time, shall not exceed the self-imposed PM/PM_{10} emission rates listed above.

3. **Testing Requirements:**

   None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

Compliance with the listed operation limits provides reasonable assurance that the particulate matter emission limitations (PM/PM_{10}) are being met. The permittee shall monitor the amount and type of throughputs (specified in the table under operational limits) added to each emission unit during a calendar month. Additionally, the owner or operator shall follow the PM plan found in Appendix A. Excursions from the requirements of the PM plan shall be corrected within 24 hours; additional time may be granted for just cause.

5. Specific Recordkeeping Requirements:

Records shall be maintained of the measures taken to follow the PM plan, control equipment excursions from their operating ranges, and the appropriate throughputs for the units in the above table. Emission units that have a combined process throughput rate limit shall be added together.

6. Specific Reporting Requirements:

Any exceedance over the individual operational (throughput) limits shall be reported to the Division within thirty days after the exceedance. Following initial notification of a throughput exceedance monthly reports for the individual unit shall be submitted, by the fifteenth of each month, to the Division's Owensboro Regional Office. The report shall contain a calculation of the individual emission units monthly and annual PM emissions to show compliance with any self imposed limit. Monthly reports shall be submitted until there has been 12 consecutive months without any exceedance of limits.

The company shall also certify to the Division, annually, that the specified records are being kept for these emission points. If more than two visible emission exceedances occur in any rolling six months, the owner or operator shall submit to the Division's Owensboro Regional Office a corrective action plan for the Division's approval on form DEP7007BB, no later than 30 days from the second exceedance.

7. Specific Control Equipment Operating Conditions:

The control equipment specified in the above table shall be maintained and operated per the PM plan found in Appendix A.

8. Alternate Operating Scenarios:

None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Group 2 Table 2.0

Emission Point	Construction/ modification date	Description
08(N90)	1969	Pitch Tank #1
08(N91)	1969	Pitch Tank #2
08(N92)	1969	Pitch Tank #3
35 [12(N120)]	1969	Cathode Heater – natural gas
50(N230 and N231)	2002	2 – 2 Ton Induction Furnaces

APPLICABLE REGULATIONS:

401 KAR 61:020, Existing process operations applies to emission units constructed before July 2, 1975.
401 KAR 59:010, New process operations applies to each emission unit constructed on or after July 2, 1975.

1. Operating Limitations:

None

2. Emission Limitations:

Pursuant to Regulation 401 KAR 59:010

a) Visible emissions shall not equal or exceed 20 percent opacity, as determined with Reference Method 9, Appendix A, 40 CFR 60.

b) Hourly particulate emissions as measured by Reference Method 5 (if required), Appendix A, 40 CFR 60 averaged over the minimum specified time, shall not exceed the limit calculated by the following formula:

$$E = 3.59\ P^{0.62}$$

Where P is the process weight (total weight of all throughput materials introduced into the emission unit) in tons/hour. If the process weight equals or is less than 0.5 ton/hour, then the particulate matter emission limitation shall be 2.34 lbs/hr.

Pursuant to Regulation 401 KAR 61:020:

a) Visible emissions shall not equal or exceed 40 percent opacity, as determined with Reference Method 9, Appendix A, 40 CFR 60.

c) Hourly particulate emissions as measured by Reference Method 5 (if required), Appendix A, 40 CFR 60, averaged over three hours or the minimum specified time, shall not exceed the limit calculated by the following formula:

$$E = 4.10\ P^{0.67}$$

Where P is the process weight (total weight of all throughput materials introduced into the emission unit) in tons/hour. If the process weight equals or is less than 0.5 ton/hour, then the particulate matter emission limitation shall be 2.58 lbs/hr.

3. Testing Requirements:

None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

a) To provide reasonable assurance that the visible emission limitations are being met the permittee shall:
   i) perform a qualitative visual observation of the opacity of emissions from each stack/vent on a weekly basis and maintain a log of the observations. The log shall note:
      1) Whether any air emissions (except for water vapor) were visible from the vent/stack,
      2) All emission points from which visible emissions occurred, and
      3) Whether the visible emissions were normal for the process.

b) To provide reasonable assurance that the particulate matter emission limitations are being met, the permittee shall monitor the monthly amounts and types of process weights added to each emissions unit.

5. Specific Record Keeping Requirements:

Records shall be maintained of the weekly qualitative visual observation, process weight, and measures taken to comply with the PM plan.

6. Specific Reporting Requirements:

The company shall certify to the Division, annually, whether the weekly visible emission surveys were conducted and if the specified records have been maintained for this emission point.

7. Control Equipment Operating Conditions:

The control equipment specified in the above table shall be maintained and operated within the operating parameters listed in the manufacturer's specification or historic data.

8. Alternate Operating Scenario:

None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Group 3 Table 3.0

Emission Point	Construction/ Modification date	Description	Type of Control
04 [(N30)]	1969	Alumina Silo 1a	Baghouse
04 [(N31)]	1969	Alumina Silo 1b	Baghouse
04 [(N32)]	1969	Alumina Silo 2a	Baghouse
04 [(N33)]	1969	Alumina Silo 2b	Baghouse
04 [(N34)]	1969	Alumina Silo 3a	Baghouse
04 [(N35)]	1969	Alumina Silo 3b	Baghouse
04 [(N36)]	1969	Alumina Silo 4a	Baghouse
04 [(N37)]	1969	Alumina Silo 4b	Baghouse
25 [04(N38)]	1969	Airveying to Alumina Silos	Vented to Potline Emission Control System
25 [04(N39)]	1969	Airveying to Alumina Silos	Vented to Potline Emission Control System
25 [04(N40)]	1969	100 ton Surge Silo	Baghouse
25 [04(N41)]	1969	100 Ton Surge Silo	Baghouse
26 [19(N190)]	1969	Limestone Unloading	Baghouse

APPLICABLE REGULATIONS:

401 KAR 61:020, Existing process operations.

1. Operating Limitations:

The baghouses and other control equipment listed in the above table shall be maintained and operated in accordance with the PM plan found in Appendix A.

2. Emission Limitations:

Pursuant to Regulation 401 KAR 61:020:

a) Visible emissions shall not equal or exceed 40 percent opacity, as determined with Reference Method 9, Appendix A, 40 CFR 60.

b) Hourly particulate emissions as measured by Reference Method 5 (if required), Appendix A, 40 CFR 60, averaged over three hours or the minimum specified time, shall not exceed the limit calculated by the following formula:

$E = 4.10\ P^{0.67}$

Where P is the process weight (total weight of all throughput materials introduced into the emission unit) in tons/hour. If the process weight equals or is less than 0.5 ton/hour, then the particulate matter emission limitation shall be 2.58 lbs/hr.

To provide reasonable assurance that the visible emission limitations are being met the permittee shall follow the PM plan for baghouses in appendix A. If the emissions are perceived to be in excess of the normal operation, then the permittee shall take the proper measures to correct the problem.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

a) To provide reasonable assurance that the visible emission limitations are being met the permittee shall perform a qualitative visual observation of the opacity of emissions from each stack/vent on a weekly basis and maintain a log of the observations. The log shall note:
   1) Whether any air emissions (except for water vapor) were visible from the vent/stack,
   2) All emission points from which visible emissions occurred, and
   3) Whether the visible emissions were normal for the process.

b) To provide reasonable assurance that the particulate matter emission limitations are being met, the permittee shall monitor the monthly amounts and types of process weight added to each emissions unit. Excursions from the control equipment's operating ranges shall be promptly corrected.

5. Specific Record Keeping Requirements:

Records shall be maintained of the weekly qualitative visual observation, monthly amounts and types of process weight, and any measures taken to comply with the PM plan.

6. Specific Reporting Requirements:

The company shall certify to the Division, annually, whether the weekly visible emission surveys were conducted and if the specified records have been maintained for this emission point.

7. Control Equipment Operating Conditions:

The control equipment specified in the above table shall be maintained and operated in accordance with the PM plan found in Appendix A.

8. Alternate Operating Scenario:

None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Group 4 **Table 4.0**

Emission Point	Construction/ Modification date	Description	Operation Limits / Month
01 [(N04)]	1996	Conveyor Barge to Tower 1	146000 tons coke
02 [(N11-*)]	1996	Conveyor- Railroad to Tower 5	146000 tons aluminum fluoride
03 [(N22-*)]	1996	Conveyor – Tower 1 & Tower 5	146000 tons coke
03 [(N23-*)]	1996	Conveyor – Tower 1 to Alumina Silos	146000 tons coke
03 [(N24-06)]	1996	Conveyor to Coke Silos	146000 tons coke
04 [(N42)]	1996	Alumina Handling Fugitives	N/A
11 [09(N96-11)]	1996	Baked Anode Dust Bin	208.3 tons fluid coke
09 [(N97-*)]	1996	Fluid Coke Dust Bin	208.3 tons fluid coke
21 [10(N103-*)]	1996	Anode Bar Stub Grinding	51.25 tons anode bars
21 [10(N104-*)]	1996	Anode Bar Stub Grinding	51.25 tons anode bars
20 [14(N144-20)]	1996	Crushed Butts Conveyor	6250.9 tons anodes
18 [14(N147-*)]	1996	Primary Crushing Fugitives	6250.9 tons anodes
14(N148-*)	1996	Secondary Crushing Fugitives	6250.9 tons anodes
22 [17(N178-*)]	1996	Bath Reclaim Fugitives	3750 tons reclaimed bath
39 [39]	1996	Alumina Handling System	16792 tons of alumina
PR(-)	1996	0.4 Mile Plant Road (expansion)	N/A
28(N280)	—	Paved Roads	
28(N280)	—	Unpaved Roads	
42 [34(34)]	1999	Cooling Tower Fan Exhaust	N/A

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

APPLICABLE REGULATIONS:
401 KAR 63:010, Fugitive emissions

1. Operating Limitations:

Pursuant to Regulation 63:010, Section 3(c):
The permittee shall take reasonable precaution to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, but are not limited to:

a) The application and maintenance of asphalt, oil, water, or suitable chemicals on roads, material stockpiles, and other surfaces which can create airborne dusts;
b) The maintenance of paved roadways in clean condition;
c) The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water;
d) The installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling.

2. Emission Limitations:

Pursuant to Regulation 401 KAR 63:010:
Visible fugitive dust emissions shall not be detected beyond the lot line of the plant's property.

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

To provide reasonable assurance that the fugitive dust emissions will not be visible beyond the plant's property the permittee shall monitor the conditions of the roadways and other fugitive dust emission units and when appropriate take action to minimize dust.

5. Specific Record Keeping Requirements:

Records shall be maintained of the time, date and type of reasonable precaution taken to prevent fugitive dust from becoming airborne.

6. Specific Reporting Requirements:

If more than two excursions occur in any rolling six months, the owner or operator shall submit to the Division's Owensboro Regional Office a corrective action plan for the Division's approval on form DEP7007BB, no later than 30 days from the second exceedance.

7. Control Equipment Operating Conditions:

None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

42(-) Cooling Tower

APPLICABLE REGULATIONS:
40 CFR 63 Subpart Q, National emission standards for hazardous air pollutants for industrial process cooling towers

1. Operating Limitations:
The permittee shall not use chromium based water treatment chemicals.

2. Emission Limitations:
None

3. Testing Requirements:
None

4. Specific Monitoring Requirements:
The permittee shall monitor the chemicals put into the cooling tower water and maintain the corresponding MSDS for chemicals used.

5. Specific Record Keeping Requirements:
Records shall be maintained of the type of water treatment chemicals used.

6. Specific Reporting Requirements:
The permittee shall report the types of chemicals used.

7. Control Equipment Operating Conditions:
None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

18 (N180, N181)
Description: **Potlines 1-4 & roof monitors**
Primary aluminum reduction potlines
Center-worked prebake three (CWPB3) potlines
Combined maximum hourly rated capacity: 24.2 tons
Combined maximum yearly rated capacity: 212000 tons
Installation date: 1969
Control System: Wet scrubber system:
4 Multiclones
8 Electrostatic precipitators
12 Wet scrubbers

APPLICABLE REGULATIONS:
Regulation 40 CFR Part 63 Subpart LL, National emission standards for hazardous air pollutants for primary aluminum reduction plant.
Regulation 401 KAR 61:165, Existing primary aluminum reduction plants.
401 KAR 61:020, Existing process operations (superceded by 40 CFR 63, Subpart LL).

1. **Operating Limitations:**
None

2. **Emission Limitations:**
Pursuant to 401 KAR 61:165:
Visible emissions shall not exceed 25 percent opacity from any primary aluminum reduction plant.

Compliance Demonstration:
To assure compliance with the visible emissions, semi-annual method 9 readings will be performed.

Pursuant to 40 CFR 63 Subpart LL:
The permittee shall not allow the emissions of total fluorides (TF) to exceed 2.5 lb/ton of aluminum produced for each potline §63.843, if emission averaging is not elected. If emission averaging is elected, the permittee shall not allow the emissions of TF to exceed those limits referenced in 63.846 and Table 1 of Subpart LL for CWPB3.

Compliance Demonstration:
Compliance with the applicable monthly individual emissions of TF

$E_p = [(C_{s1} \times Q_{sd})_1 + (C_{s2} \times Q_{sd})_2]/ (P \times K)$ **equation 1** *(63.847(e))*

Where E_p is the emission rate of total fluorides from each potline in lb/ton, C_{s1} is the concentration of total fluorides from the primary control system in mg/dscf, Q_{sd} is the volumetric flow rate of effluent gas corresponding to the appropriate subscript location in dscf/hr, C_{s2} is the concentration

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

of total fluorides as measured for roof monitor emissions in mg/dscf, P is the aluminum production rate in ton/hr, K is the conversion factor 453,600 mg/lb. The aluminum production rate (P) shall be determined by dividing the number of hours in the calendar month into the weight of aluminum tapped during the calendar month that includes the three runs for a performance test.. 1 denotes the subscript for primary control system effluent gas, and 2 denotes the subscript for the roof monitors effluent gas. The concentration and volumetric flow rate for the primary control system shall be determined from the previous 12-month average of all performance test runs (63.848(a)). The concentration and volumetric flow rate for the roof monitor shall be determined using the monthly average from at least three performance test runs(63.848(a)) performed on each potline.

Compliance with the applicable monthly average emissions of TF listed above shall be determined using equation 1 except that the sum of emissions from each potline included in the group, determined separately using the numerator, is divided by the total aluminum production from all of the potlines comprising the group for the month. The monthly average emissions (in lb/ton) of secondary emissions (roof monitor) and TF from the primary control system for each potline shall be determined using test provisions specified below and calculated using the numerator in equation 1. At least three performance test runs per potline each month must be performed for the secondary emission. The results of the secondary emissions shall be combined with the TF results for the primary control system (s) and divided by the total aluminum production. Each potline's average hourly production rate shall be determine by dividing the number of hours in the calendar month into the weight of aluminum tapped during the calendar month that includes the three runs for a performance test. The average hourly production for the potlines comprising the group shall be combined to determine the total aluminum production.

Any potline, other than a reconstructed potline, that is changed such that its applicable subcategory also changes, shall meet the applicable emission limit in 40 CFR 63 §63.843(a)(1) for the original subcategory, center-worked prebake three (CWPB3), or the new subcategory, whichever is more stringent.

3. Testing Requirements:

Pursuant to 401 KAR 61:165:
The permittee shall perform semi-annual Method 9 opacity readings and annual Method 5 particulate tests.

Pursuant to 40 CFR 63 Subpart LL:
The permittee shall perform tests in accordance with 40 CFR 63.847 (b)-(d) and 63.849.
The test plan must comply with 63.847 and be in accordance with 40 CFR 63.7:

The test plan must include procedures for conducting the initial performance test and for subsequent performance tests required in 40 CFR 63.848 for emission monitoring. In addition to the information required by 40 CFR 63.7, the test plan shall include:

1. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source
2. Procedures for establishing the frequency of testing to ensure that at least one run is performed before the 15th of the month, and at least one run is performed after the 15th of the month, and that there are at least six days between two of the runs during the month, or that secondary emissions are measured according to an alternate schedule satisfactory to the applicable regulatory authority.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

In addition, the owner or operator shall measure and record at least three runs each month for secondary emissions and at least three runs each year for the primary control system to determine compliance with the applicable emission limits. The permittee shall conduct an initial performance test during the first month following the compliance date. If a performance test has been conducted on the primary control system for potlines within the 12 months prior to the compliance date, the results of that performance test may be used to determine initial compliance. The initial performance test and all subsequent performance tests shall be conducted in accordance with the requirements of the general provisions in Subpart A of Part 63, the approved test plan, and the procedures in 40 CFR 63 Subpart LL. If the permittee has performed more than one test of primary emission control devices for potlines during the previous consecutive 12 months, all tests shall be used to determine the contribution from the primary emission control system. The permittee shall use the reference methods listed 40 CFR 63.849 to determine compliance with the applicable emission limits for TF.

4. Specific Monitoring Requirements:

a) To provide reasonable assurance that the visible emission limitations are being met the permittee shall:
   i) Perform visual opacity readings on the stack or vent using Reference Method 9 on a semi-annual basis, or more frequently if requested by the Division. Opacity readings shall be conducted while the emission units are in operation.
   ii) Perform a qualitative visual observation of emissions from each stack/vent on a daily basis and maintain a log of the observation. The log shall note:
      1) whether any air emissions (except for water vapor) were visible from the vent/stack,
      2) all emission points from which visible emissions occurred, and
      3) whether the visible emissions were normal for the process.
   iii) Determine the opacity of emissions by Reference Method 9 if abnormal visible emissions from any stack/vent are observed.

b) To provide reasonable assurance that the particulate matter emission limitations are being met, the permittee shall monitor the monthly amounts and types of process weight added to each emissions unit and the operating parameters of each control device. Excursions from the control equipment's operating ranges shall be promptly corrected as per the provisions of the Startup, Shutdown and Malfunction Plan.

Pursuant to 401 KAR 61:165:
The permittee shall maintain systems to determine the daily weight of aluminum produced.
The permittee shall maintain ambient air monitoring equipment for fluoride and monitor the raw material feed rates and cell or potline voltage.

Pursuant to 40 CFR 63 §63.848(a),

a) The TF emissions from each potline shall be monitored through monthly performance tests specified in the testing requirement section and in 40 CFR 63 Subpart LL. TF emissions shall be computed and recorded using equation 1. "If a reduced sampling frequency is approved the TF emissions from each potline shall be monitored quarterly using the approved test schedule and methods. Compliance with TF emissions shall be computed and recorded quarterly using equation 1. If prior approval for alternative monitoring for similar potline has

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

been granted monthly monitoring shall be performed using the approved alternative monitoring procedures to demonstrate compliance with the alternative emission limit for each similar potline as well monitoring one of the similar potlines using monthly performance tests to demonstrate compliance with the TF 2.5 lbs/ton of aluminum produced limit.

A reduced sampling frequency has been requested for potlines 1, 2 and 4. These potlines shall be monitored quarterly. Potline 3 shall remain under the monthly monitoring until a request for reduced sampling is submitted.

b) The daily amount of aluminum tapped from each potline shall be monitored and recorded. To determined the amount of aluminum tapped the owner or operator shall install, operate, and maintain a monitoring device. Calibration must be performed in accordance with the manufacturer's instructions.

c) The owner or operator shall visually inspect the exhaust stack(s) of each control device on a daily basis for evidence of any visible emissions indicating abnormal operation.

d) (1) The owner or operator shall maintain a continuous parameter monitoring system for each emission control device.

(2) If the monitoring system for a primary control device measures an operating parameter outside the range required to be established pursuant to §63.847(h), or if visible emissions indicating abnormal operation are observed from the exhaust stack of a control device during a daily inspection, the owner or operator shall initiate the corrective action procedures identified in the Startup, Shutdown, and Malfunction Plan within 1 hour. Failure to initiate the corrective action procedures within 1 hour or to take the necessary corrective actions to remedy the problem is a violation.

(3) If the range for a given operating parameter associated with monitoring a specific control device is exceeded six times in any semiannual reporting period, then any subsequent exceedance in that reporting period is a violation. For the purpose of determining the number of exceedances, no more than one exceedance shall be attributed in any given 24-hour period.

e) The owner or operator shall monitor the actions taken during any startup, shutdown, and malfunction event.

f) The TF emissions can be measured from one potline and monitor other similar potlines by alternative procedures provided the permittee demonstrates that the potlines are similar.

5. Specific Record Keeping Requirements:

Records shall be maintained of the daily qualitative visual observation, semi-annual Reference Method 9 opacity readings, control equipment excursions from their operating ranges, and the aluminum production.

Pursuant to 401 KAR 61:165, the permittee shall maintain records of the cell or potline voltage.

The owner or operator shall maintain records of all information (including all reports and notifications) required by Section 63.10(b) and by 40 CFR 63 Subpart LL. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain the following information:

i) records of the monthly TF emission rates calculated using equation (63.837(c));

ii) results of each performance test run;

iii) records that demonstrate that the operating parameters established under Section 63.847(h) are being met;

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

iv) records of the calibration for all monitoring devices;
v) records of the daily production rate of aluminum;
vi) a copy of the startup, shutdown, and malfunction plan;
vii) records supporting the monitoring of similar potlines demonstrating that the performance of similar potlines is the same as or better than that of potlines sampled by manual methods (if applicable);
viii) records supporting a request for reduced sampling of potlines (if applicable);
ix) records supporting the correlation of emissions measured by a continuous emission monitoring system to emissions measured by manual methods and the derivation of the alternative emission limit derived from the measurements (if applicable);
x) a copy of the current implementation plan for emission averaging and any subsequent amendments; (if applicable)
xi) records, such as a checklist or the equivalent, demonstrating that the daily visual inspection of the exhaust stack for each control device has been performed as required in Sec. 63.848(g), including the results of each inspection;
xii) records of the information and data required by Sec. 63.10(c), for a potline equipped with an HF continuous emission monitor (if applicable);
xiii) records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, or when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g);
xiv) records documenting the portion of TF that is measured as particulate matter and the portion that is measured as gaseous when the particulate and gaseous fractions are quantified separately using an approved test method;
xv) records documenting the actions taken during a startup, shutdown, or a malfunction; and
xvi) records of the maintenance performed on all control and monitoring devices.

6. Specific Reporting Requirements:

The owner or operator may report required information on paper or on a labeled computer disk or CD using commonly available and compatible computer software.

a) The owner or operator shall submit a summary of all performance tests on an annual basis except as required below in excess emission report (e) and in 63.850(d).
b) The owner or operator shall maintain a site specific test plan according the requirements of 63.7 (c) of part 63 for DAQ review and approval. The plan must include procedures for conducting the initial and subsequent performance tests required for emission monitoring. In addition to the information required by 63.7, the plan shall include the following information:
   1) Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;
   2) Procedures for establishing the frequency of testing to ensure that at least one run is performed before the 15th of the month, at least one run is performed after the 15th of the month, and that there are at least 6 days between two of the runs during the month, or that secondary emissions are measured according to an approved alternate schedule.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3) A test summary, the test schedule, data quality objectives (the pretest expectations of precision, accuracy, and completeness of data), and both an internal and external quality assurance (QA) program. The external and internal QA programs shall include, at a minimum the information specified in 63.7 (2)(ii) and (iii), respectively.

c) The owner or operator shall maintain a description of the parameter(s) to be monitored, the operating limits, and the monitoring frequency to ensure that the each control device is being properly operated and maintained. An explanation of the criteria used to select each of the above, including how each relates to emission control shall be included.

d) Semiannual reports of action taken during a startup, shutdown and malfunction: The owner or operator shall submit semiannually reports that confirm that actions taken during the relevant reporting period during startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown, and malfunction plan. If action taken during the startup, shutdown, or malfunction is not consistent with the affected source's plan, the owner or operator shall record the actions taken for the event and shall report such actions within two working days after commencing action inconsistent with the plan followed by a letter within 7 working days after the end of the event, in accordance with 63.10(d)(5) (unless alternative reporting arrangement have been made in advance).

e) Excess emission report: As required by Sec. 63.10(e)(3), the owner or operator shall submit an excess emissions report (or a summary report) if measured emissions are in excess of the applicable standard. The report shall contain the information specified in Sec. 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

7. Specific Control Equipment Operating Conditions:

The permittee shall maintain a description of the parameters to be monitored, the operating limits, and the monitoring frequency to ensure that the control device is being properly operated and maintained. An explanation of the criteria used for selection of the parameters, the operating limits, and the monitoring frequency, including how these relate to emission control also shall be kept.

The permittee shall maintain a continuous parameter monitoring system or equivalent system for each emission control device. The control devices shall be inspected at least once each operating day to ensure the control device is operating properly and record the results of each inspection. The permittee shall visually inspect the exhaust stack of each control device on a daily basis for evidence of any visible emissions indicating abnormal operation.

The permittee shall submit recommended accuracy requirements to the Division for review and approval.

8. Compliance Schedule:

None

9. Compliance Certification Requirements

Pursuant to 40 CFR 63 §63.848(k), the owner or operator shall certify that the required monitoring system is being maintained.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

P5 (37) Potline 5 & roof monitors

Description:

Primary aluminum reduction potline
Center-worked prebake one (CWPB1) potline
Maximum hourly rated capacity: 7.53 tons
Maximum yearly rated capacity: 66000 tons
Installation date: 1998
Control Equipment: Dry alumina scrubber system

APPLICABLE REGULATIONS:

Regulation 40 CFR Part 63 Subpart LL, National emission standards for hazardous air pollutants for Primary Aluminum Reduction Plants.
401 KAR 59:010, New process operations.
Self-imposed limitations supersedes the mass emissions standards prescribed by 401 KAR 59:010, New process operations.
Regulation 401 KAR 51:017, PSD applies to NO_x carbon monoxide and sulfur dioxide emissions

1. Operating Limitations:

The following operational limits are to meet BACT and protect NAAQS:

a) The permittee shall not exceed an aluminum production rate 66,000 tons per year and 5500 tons per month. (self-imposed).
b) The petroleum coke used to make the green anodes shall not exceed 3.0 percent sulfur by weight and the coal tar pitch shall not exceed 0.80 percent sulfur by weight as measured by the standard ASTM method or an approved alternative method.
c) The design capture efficiency for the collection system on the fifth potline shall equal, or exceed, 98 percent.

2. Emission Limitations:

Sulfur Dioxide emissions shall not exceed 7.44 lbs/hr, 32.57 TPY from the roof monitors, 364.52 lbs/hr, 1596.604 TPY from the unit, and combined 49.356 lbs/ton of aluminum. Hourly sulfur dioxide emissions shall be measured by Reference Method 6 and averaged over 3 hours. (BACT)
Carbon Monoxide emissions shall not exceed 2643 lbs/hr, 11576.34 TPY, and 350.55 lbs/ton of aluminum. Hourly carbon monoxide emissions shall be measured by Reference Method 10, 10A, or 10B and averaged over the minimum time specified in the standard. (BACT)

Volatile organic compounds emissions shall not exceed 8.29 lbs/hour, 36.30 TPY, and1.100 lb/ton of aluminum produced. Hourly volatile organic compound emissions shall be measured by Reference Method 25 or 25A and averaged over 3 hours or the minimum specified time. (BACT)

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Self-imposed hourly particulate emissions as measured by Reference Method 5, Appendix A, 40 CFR 60, and PM_{10} as measured by Reference Method 201 or 201a, Appendix M, 40 CFR 51, averaged over three hours or the minimum specified time in the standard shall not exceed 31.5 lbs/hour and 137.97 TPY.

Opacity Standard: Section 3 (1), visible emissions from the stack shall not equal or exceed 20 percent opacity, as determined with Reference Method 9, Appendix A 40 CFR 60.

Compliance demonstration: The permittee shall demonstrate compliance through monitoring and maintenance of the records as specified in points 4. **Specific Monitoring Requirements** and 5. **Specific Record Keeping Requirements** below.

Pursuant to 40 CFR 63 §63.844(a)(1):
The emissions of total fluorides (TF) into the atmosphere shall not exceed 1.2 lb/ton of aluminum produced.

Compliance Demonstration:
The following equation will be used to demonstrate compliance with the Subpart LL requirements (63.87(e)):

$E_p = [(C_{s1} \times Q_{sd})_1 + (C_{s2} \times Q_{sd})_2]/ (P \times K)$ **Equation 1**

Where E_p is the emission rate of total fluorides from the potline in lb/ton, C_{s1} is the concentration of total fluorides from the primary control system in mg/dscf, Q_{sd} is the volumetric flow rate of effluent gas corresponding to the appropriate subscript location in dscf/hr, C_{s2} is the concentration of total fluorides as measured for roof monitor emissions in mg/dscf, P is the aluminum production rate in ton/hr, K is the conversion factor of 453,600 mg/lb, $_1$ denotes the primary control system effluent gas, and $_2$ denotes the secondary control system or roof monitor effluent gas. The aluminum production rate (P) shall be determine by dividing the number of hours in the calendar month into the weight of aluminum tapped during the calendar month that includes the three runs for a performance test.. The concentration and volumetric flow rate for the primary control system shall be determined from the previous 12-month average of all performance test runs (63.848(a)). The concentration and volumetric flow rate for the roof monitor shall be determined using the monthly average from at least three performance test runs (63.848(a)).

3. Testing Requirements:

All performance tests shall be conducted in accordance with Section D of this permit and under conditions representative of the emission unit's normal operation.

Annual performance tests, starting within 30 calendar days of the anniversary date of the initial performance test, shall be conducted on the potroom 5 exhaust stack and the roof monitors for SO_2 and CO. If two consecutive annual tests demonstrate that the emissions of SO_2 and CO are less than or equal to 75% of the standards specified herein, then no additional testing for SO_2 and CO shall be required during the term of this permit. Aluminum production shall also be monitored and recorded during the performance test.

Within 30 calendar days of the anniversary date of the initial performance test, annual performance tests shall be conducted on potroom 5's exhaust and the roof monitors for PM/PM_{10}. If two consecutive annual tests demonstrate that the short-term emissions of PM/PM_{10} are less than or

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

equal to 75% of the standards specified herein, then no additional testing for PM/PM_{10} shall be required during the term of this permit for that emission unit. The amount of aluminum tapped shall be determined and recorded during each performance test on the potline. Emission factors shall be developed from the most recent performance test and the specified operational limit. Particulate performance tests may be substituted for PM_{10} tests if all particulate is assumed to be PM_{10}.
The permittee shall perform tests in accordance with 40 CFR 63.847 (b)-(d) using the test methods and procedures in 63.849.

Pursuant to 63.847:

The test plan must include procedures for conducting the performance tests required in 40 CFR 63.848 for emission monitoring. In addition to the information required by 40 CFR 63.7, the test plan shall include:

1. Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source.
2. Procedures for establishing the frequency of testing to ensure that at least one run is performed before the 15th of the month, and at least one run is performed after the 15th of the month, and that there are at least six days between two of the runs during the month, or that secondary emissions are measured according to an alternate schedule satisfactory to the applicable regulatory authority.

In addition, the owner or operator shall measure and record at least three runs each month for secondary emissions and at least three runs each year for the primary control system to determine compliance with the applicable emission limits. All performance tests shall be conducted in accordance with the requirements of the general provisions in Subpart A of Part 63, the approved test plan, and the procedures in 40 CFR 63 Subpart LL. The permittee shall use the reference methods listed 40 CFR 63.849 to determine compliance with the applicable emission limits for TF.

4. Specific Monitoring Requirements:

a) To provide reasonable assurance that the visible emission limitations are being met the permittee shall perform weekly qualitative visible emission readings on potline stack using Reference Method 9.

b) To provide reasonable assurance that the particulate matter emission limitations (PM/PM_{10}) are being met, the permittee shall monitor the amount and type of operational throughput monthly added to each emission unit as specified above as well as conduct an annual performance test. The owner or operator shall *continuously* monitor the air flow rate and pressure drop across the baghouses. Monthly particulate emissions shall be calculated for each emission as follows:

PE = (TP x PEF)/ 2000 lbs/ton

Where PE = particulate emissions/PM_{10} in tons emitted per month, TP = actual throughput (operation limit) in tons/month, and PEF = particulate emission factor in lbs/ton of throughput. The particulate emission factors shall be the number determined from the most recent compliance test required in the above Testing Requirement Section or other emission test or emission factors approved by the Division.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Pursuant to 40 CFR 63 §63.848(a),

a) The TF emissions shall be monitored through monthly roof monitor performance tests specified in the testing requirement section and in 40 CFR 63 Subpart LL. TF emissions shall be computed and recorded using equation 1. If a reduced sampling frequency is approved the TF emissions from the roof monitors shall be monitored quarterly using the approved test schedule and methods. Compliance TF emissions shall be computed and recorded quarterly using equation 1.

b) The daily amount of aluminum tapped shall be monitored and recorded. To determined the amount of aluminum tapped the owner or operator shall install, operate, and maintain a monitoring devise. Calibration must be performed in accordance with the manufacturer's instructions.

c) The owner or operator shall visually inspect the exhaust stack(s) of each control device on a daily basis for evidence of any visible emissions indicating abnormal operation.

d) (1) The owner or operator shall maintain a continuous parameter monitoring system for the emission control device. Unless prior written approval by DAQ for alternative control device operating parameters has been granted, the owner or operator shall, as a minimum, install for the dry alumina scrubbers devices for the measurement of alumina flow and air flow.

(2) If a monitoring device for a primary control device measures an operating parameter outside the range(s) required to be established pursuant to §63.847(h), or if visible emissions indicating abnormal operation are observed from the exhaust stack of a control device during a daily inspection, the owner or operator shall initiate the corrective action procedures identified in the startup, shutdown, and malfunction plan within 1 hour. Failure to initiate the corrective action procedures within 1 hour or to take the necessary corrective actions to remedy the problem is a violation.

(3) If the range for a given operating parameter associated with monitoring a specific control device is exceeded six times in any semiannual reporting period, then any subsequent exceedance in that reporting period is a violation. For the purpose of determining the number of exceedances, no more than one exceedance shall be attributed in any given 24-hour period.

e) The owner or operator shall monitor the actions taken during any startup, shutdown, and malfunction event as provided for in 40 CFR 63.6(e)(3).

Monthly throughputs shall be monitored and recorded to assure compliance with the operational limits.

Aluminum production shall be recorded and monitored.

5. <u>Specific Record Keeping Requirements:</u>

a) Monthly throughputs shall be monitored and recorded to assure compliance with the operational limitations.

b) Annual performance testing as specified in the testing requirement section.

c) Records shall be maintained of visible emission readings using Reference Method 9, baghouse pressure drops and air flow rate, monthly specified operational limits (throughput), performance test results, the derived emission factor and the monthly particulate emission calculations.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

d) The owner or operator shall maintain records of all information (including all reports and notifications) required by Section 63.10(b) and by 40 CFR 63 Subpart LL. Each record must be maintained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained offsite. Records may be retained on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain the following information:

i) Records of the monthly TF emission rates calculated using equation 1;
ii) Records of the results of each performance test run;
iii) Records demonstrating that the operating parameters established under Section 63.847(h) are being met;
iv) Records of the calibration and maintenance for all monitoring and control devices; (if applicable)
v) Records of the daily production rate of aluminum;
vi) A copy of the startup, shutdown, and malfunction plan;
vii) Records supporting a request for reduced sampling of potlines (If Applicable);
viii) Records supporting the correlation of emissions measured by a continuous emission monitoring system to emissions measured by manual methods and the derivation of the alternative emission limit derived from the measurements (If Applicable);
ix) Records, such as a checklist or the equivalent, demonstrating that the daily visual inspection of the exhaust stack for each control device has been performed as required in Sec. 63.848(g), including the results of each inspection;
x) Records of the information and data required by Sec. 63.10(c), f or a potline equipped with an HF continuous emission monitor (If Applicable);
xi) Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, or when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g);
xii) Records documenting the portion of TF that is measured as particulate matter and the portion that is measured as gaseous when the particulate and gaseous fractions are quantified separately using an approved test method; and
xiii) Records documenting the actions taken during a startup, shutdown, or a malfunction.

6. Specific Reporting Requirements:

Any exceedance over the particulate emission limits or opacity shall be reported in writing to the Division, no later than 30 days after the exceedance. Following initial notification of an exceedance monthly reports shall be submitted, by the fifteenth of each month, to the Division's Owensboro Regional Office. The reports shall contain individual emission units' monthly and annual PM/PM_{10} emission estimates and a summation of all emission units' annual PM/PM_{10} emissions. Monthly reports shall be submitted until there has been 12 consecutive months without any exceedance. The company shall also certify to the Division, annually, that the specified records are being kept for this

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

emission point and that any exceedances were reported.

The owner or operator may report required information on paper or on a labeled computer disc using commonly available and compatible computer software.

a) Performance test reports: The owner or operator shall report the results of the initial performance test as part of the notification of compliance status required in the compliance section. The owner or operator shall submit a summary of all subsequent performance tests on an annual basis except as required below in excess emission report (i) and in 63.850(d).

b) Control device requirements: As part of the compliance test report, the owner or operator shall submit a description of the parameter(s) monitored, the operating limits, and the monitored range to ensure that the each control device is being properly operated and maintained.

c) Engineering plan: The owner or operator shall develop and submit, if requested, an engineering plan that describes the techniques that will be used to address the capture efficiency of the reduction cells for gaseous hazardous air pollutants in compliance with the specified emission limits.

d) Semiannually reports for the actions taken during a startup, shutdown, and malfunction: The owner or operator shall submit semiannual reports to confirm that actions taken during the relevant reporting period during startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown, and malfunction plan. If action taken during the startup, shutdown, or malfunction is not consistent with the affected source's plan, the owner or operator shall record the action taken for the event and shall report such actions within two working days after commencing action inconsistent with the plan followed by a letter within 7 working days after the end of the event, in accordance with 63.10(d)(5) (unless alternative reporting arrangement have been made in advance). Additionally, the owner or operator shall submit for the Division's review and approval any modifications to the affected source's startup, shutdown, and malfunction plan.

e) Excess emissions report: As required by Sec. 63.10(e)(3), the owner or operator shall submit an excess emissions report (or a summary report) if measured emissions are in excess of the applicable standard. The report shall contain the information specified in 63.10(e)(3)(v) and be submitted semiannually unless quarterly reports are required as a result of excess emissions.

7. Compliance Certification Requirements

Pursuant to 40 CFR 63 §63.848(k), the owner or operator shall certify that the required monitoring system is maintained as required.

8. Compliance Schedule:

None

9. Specific Control Operating Conditions:

The dry alumina scrubber shall operate within the parameters required to be established in the Testing Requirement section and in 63.847 (h) and (f). The permittee shall install, maintain, and operate the dry alumina scrubber system in accordance with the manufacturer's specification.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

09 (N94) Carbon Bake Furnace

Description:

Self-imposed monthly limit: 18,083 tons per month of green anodes.
8,900 tons per month of packing coke.
New carbon bake furnace installation date: 1999
Two existing carbon bake furnaces installed: 1969
Control equipment: dry alumina scrubber system:

APPLICABLE REGULATIONS:

Regulation 40 CFR Part 63 Subpart LL, National emission standards for hazardous air pollutants for Primary Aluminum Reduction Plants.
401 KAR 59:010, New process operations applies to the visible emissions.
Self-imposed limitations supersedes the mass emissions standards prescribed by 401 KAR 59:010
401 KAR 51:017, Prevention of significant deterioration of air quality (PSD) applies to carbon monoxide, NO_x and sulfur dioxide emissions.

1. Operating Limitations:

The monthly green anode production shall not exceed 18,083 tons (self-imposed)
The monthly packing coke consumption shall not exceed 8,900 tons (self-imposed)
Natural gas usage for the existing ovens shall not exceed 56 mmcf/month, natural gas usage for the new oven shall not exceed 19 mmcf per month, and combined propane usage shall not exceed 56.25 thousand gallons per month.
The following operational limits are to protect BACT and NAAQS:

a) The petroleum coke used to make the green anodes shall not exceed 3.0 percent sulfur by weight and the coal tar pitch shall not exceed 0.80 percent sulfur by weight as measured by the standard ASTM method or an approved alternative method.
b) The volatile organic matter (VOM) contents of the petroleum coke shall be calculated by subtracting the coking value of the as received material from one (1-coking value = VOM content). The VOM content of the coal tar pitch shall be determined from information submitted by the supplier. Performance tests must be performed prior to changes in the coking value.

2. Emission Limitations:

Nitrogen oxide emissions from the existing ovens natural gas, pitch and coke combustion expressed as NO_2, determined by Reference Method 7 or 7E, Appendix A, 40 CFR 60, shall not exceed 120.43 tons per year.

Nitrogen oxide emissions from the new oven natural gas, pitch and coke combustion usage shall not exceed 40.01 tons per year. Nitrogen oxide emissions from propane only shall not exceed 6.41 tons per year. (BACT)

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Sulfur Dioxide emissions shall not exceed 118.17 lbs/hr, 517.6 TPY, and 5 lbs/ton of green anode. Hourly sulfur dioxide emissions shall be measured by Reference Method 6 and averaged over 3 hours. (BACT)

Carbon Monoxide emissions from the existing ovens shall not exceed 164.30 lbs/hr, 719.7 TPY. Carbon monoxide emissions for the new oven shall not exceed 55.69 lb/hr, 243.9 TPY. Hourly carbon monoxide emissions shall be measured by Reference Method 10, 10A, or 10B and averaged over the minimum time specified in the standard or 3 hours whichever is less. (BACT)

Volatile organic compounds emissions, after methane extraction, shall not exceed 4.33 lbs/hour, 18.96 TPY, and 0.175 lb/ton of green anode. Hourly volatile organic compound emissions shall be measured by Reference Method 25 or 25A and averaged over 3 hours or the minimum specified time. (BACT)

Hourly particulate emissions as measured by Reference Method 5 (if required), Appendix A, 40 CFR 60 averaged over the minimum specified time, shall not exceed the limit calculated by the following formula:

$$E = 3.59\ P^{0.62}$$

Where P is the process weight (total weight of all throughput materials introduced into the emission unit) in tons/hour. If the process weight equals or is less than 0.5 ton/hour, then the particulate matter emission limitation shall be 2.34 lbs/hr.

Self-imposed hourly particulate emissions as measured by Reference Method 5, Appendix A, 40 CFR 60, averaged over three hours or the minimum specified time in the standard shall not exceed 3.16 lb/hour and 1.15 tons per month.

Pursuant to 40 CFR 63 §63.846(c) Table 3, emissions of TF and POM shall not exceed the limits calculated using the equation below.
Emission limits for the POM and TF emission rates shall be determined by the following equations:

For TF

$E_b = [(A)*(S1)+(B)*(S1)+ (C)*(S2)]/(A+B+C)$

Where E_b is the emission rate of TF in lb/ton of green anodes produced; A is the production in building number 1 in green tons to oven per month; B is the production in building number 2 in green tons to oven per month; C is the production in building number 3 in green tons to oven per month; S1 is the existing source NESHAP limit; and S2 is the new source NESHAP limit.

For POM

$E_b = [(A)*(S1)+(B)*(S1)+ (C)*(S2)]/(A+B+C)$

Where E_b is the emission rate of POM in lb/ton of green anodes produced;; A is the production in building number 1 in green tons to oven per month; B is the production in building number 2 in green tons to oven per month; C is the production in building number

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3 in green tons to oven per month; S1 is the existing source NESHAP limit; and S2 is the new source NESHAP limit.

The rate of green anode material introduced into the furnace ($_{P.B.}$) shall be determined by dividing the number of operating hours in the calendar month into the weight of green anode material used during the calendar month in which the performance test was conducted.

Compliance Demonstration:

Compliance with the POM and TF emission rates shall be determined by the following equations:

For TF

$E_b = (C_s \times Q_{sd})/(P.B. \times K)$ equation 2

Where E_b is the emission rate of TF in lb/ton of green anodes produced; C_s is the concentration of TF in mg/dscf; Q_{sd} is the volumetric flow rate of effluent gas in dscf/hr; P.B. is the quantity of green anode material placed in the furnace in ton/hr; and K is the conversion factor of 453,600 mg/lb.

For POM

$E_b = (C_s \times Q_{sd})/(P.B. \times K)$ equation 3

Where E_b is the emission rate of POM in lb/ton of green anodes produced; C_s is the concentration of POM in mg/dscf; Q_{sd} is the volumetric flow rate of effluent gas in dscf/hr; P.B. is the quantity of green anode material placed in the furnace in ton/hr; and K is the conversion factor of 453,600 mg/lb.

The rate of green anode material introduced into the furnace ($_{P.B.}$) shall be determined by dividing the number of operating hours in the calendar month into the weight of green anode material used during the calendar month in which the performance test was conducted.

3. Testing Requirements:

Annual performance tests, starting within 30 calendar days of the anniversary date of the initial performance test, shall be conducted to determine the carbon bake furnaces' PM/PM_{10}, SO_2, CO, and NO_x emissions. If two consecutive annual tests demonstrate that the emissions of SO_2, CO, and NO_x are less than or equal to 75% of the standards specified herein, then no additional testing for CO, SO_2, and NO_x shall be required during the term of this permit.

All performance tests shall be conducted in accordance with Section D of this permit and under conditions representative of the emission unit's normal operation. The amount of green anodes baked and the amount of packing coke used shall be determined and recorded during each performance test on the carbon bake furnaces. Emission factors shall be developed from the most recent performance test and the specified operational limit. Particulate performance tests may be substituted for PM_{10} tests if all particulate is assumed to be PM_{10}.

Pursuant to 63.848 and 63.849, the owner or operator shall measure and record the emission rate of TF and POM exiting the exhaust stacks of the primary emission control system. All valid runs

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

must be included in the annual average. Compliance is demonstrated when the emission rates of TF and POM are equal to or less than the applicable TF and POM emission limit. The parametric range for the emission control system parameter(s) shall be determined from the values recorded during each of the runs performed during the initial performance test. The owner or operator may redetermine the range as appropriate, based on historical data or other information and submit a request to DAQ to change the applicable range(s). The redetermined ranges shall become effective upon approval of the request. All performance tests (measurements) shall be conducted in accordance with the requirements of the general provisions in 40 CFR part 63 Subpart A, the approved test plan, the requirements specified in 40 CFR 63 Subpart LL, the requirements specified in SECTION D of this permit, and shall be performed using the appropriate Reference Method.

4. Specific Monitoring Requirements:

The permittee shall monitor and record the monthly fuel usage rates of natural gas and propane of the new and existing ovens separately.

a) Monthly throughputs shall be monitored and recorded to assure compliance with the operational limitations found in the Operating Limitations section.

b) Sulfur contents of the coke and coal tar pitch shall be recorded and determined with an ASTM standard or alternative method. Each method shall be approved by the Division. The method used to determination sulfur content of coke shall assure that the average percent sulfur by weight of each shipment of coke will not exceed 3.0 percent. The percent sulfur by weight of the coal tar pitch shall be determined by weekly ASTM or alternative sampling of each of the coal tar pitch storage tanks.

c) Annual performance testing as specified in the testing requirement section.

d) Green anode monthly consumption and amount of aluminum produced shall be recorded and monitored. (Based on 30 consecutive days.)

e) Carbon bake furnaces' fuel usage rates of natural gas and propane and furnace finish temperature shall be recorded and monitored monthly. The existing and new furnaces natural gas consumption rate shall be monitored separately.

f) Dry scrubber operational parameters as per the parametric plan shall be constantly monitored and any excursion shall be recorded.

g) Records of the VOM contents of the coal tar pitch and petroleum coke shall be maintained.

h) To provide reasonable assurance that the visible emission limitations are being met the permittee shall perform weekly visible emission readings on the carbon bake furnaces' primary control system stack using Reference Method 9. Additionally, compliance assurance will be provided by the periodic monitoring specified in 40 CFR 63 Subpart LL.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

i) To provide reasonable assurance that the particulate matter emission limitations (PM/PM_{10}) are being met, the permittee shall monitor the amount and type of process throughput monthly added to each emission unit as well as conduct annual performance test. The owner or operator shall *continuously* monitor the air flow rate and pressure drop across the baghouses. Excursions from the control equipment's operating ranges shall be promptly corrected as per the Startup/Shutdown Malfunction Plan. Monthly particulate emissions shall be calculated for each emission unit as follows:

PE = (TP x PEF)/ 2000 lbs/ton.

Where PE = particulate emissions/PM_{10} in tons emitted per month, TP = actual throughput (operation limit) in tons/month, and PEF = particulate emission factor in lbs/ton of throughput. The particulate emission factors shall be the number determined from the most recent compliance test required in the above Testing Requirement Section or other emission test or emission factors approved by the Division.

j) Using the procedures in §63.847, in the approved test plan, and in the test requirement section above the owner or operator shall monitor TF and POM emissions from each anode bake furnace on an annual basis.

k) The amount of green anode material place in the furnace shall be monitored and recorded. The weight may be determined by monitoring the weight of all anodes or by monitoring the number of anodes placed in the furnace and determining an average weight from measurements of a representative samples of anodes.

l) The owner or operator shall visually inspect the exhaust stack of the control device on a daily basis for evidence of any visible emissions indicating abnormal operation.

m)(1) The owner or operator shall install, operate, calibrate (performed in accordance with the manufacturer's instructions), and maintain a continuous parameter monitoring system for each emission control device. Unless prior written approval by DAQ for alternative control device operating parameters has been granted, the owner or operator shall, as a minimum, install for the dry alumina scrubbers devices for the measurement of alumina flow and air flow.

(2) If a monitoring device for a primary control device measures an operating parameter outside the limit(s) required to be established pursuant to §63.847(h), or if visible emissions indicating abnormal operation are observed from the exhaust stack of a control device during a daily inspection, the owner or operator shall initiate the corrective action procedures identified in the startup, shutdown, and malfunction plan within 1 hour. Failure to initiate the corrective action procedures within 1 hour or to take the necessary corrective actions to remedy the problem is a violation.

(3) If the limit for a given operating parameter associated with monitoring a specific control device is exceeded six times in any semiannual reporting period, then any subsequent exceedance in that reporting period is a violation. For the purpose of determining the number of exceedances, no more than one exceedance shall be attributed in any given 24-hour period.

n) The owner or operator shall monitor the actions taken during any startup, shutdown, and malfunction event.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Record Keeping Requirements:

Records shall be maintained of visible emission readings using Reference Method 9, monthly fuel usage rates, baghouse pressure drops and air flow rate, control equipment's routine and emergency maintenance, monthly throughputs, performance test results, the derived emission factor and the monthly particulate emission calculations.

The owner or operator shall maintain records of all information (including all reports and notifications) required by Section 63.10(b) and by 40 CFR 63 Subpart LL. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i) Annual TF and POM emission rates calculated using the equations in Section 2 Compliance Demonstration;
ii) Results of each performance test run;
iii) Demonstrating that the operating parameters established under Section 63.847(h) are being met;
iv) Calibration and maintenance for all monitoring and control devices;
v) Amount of green anode material placed in the furnace;
vi) A copy of the startup, shutdown, and malfunction plan;
vii) Records, such as a checklist or the equivalent, demonstrating that the daily visual inspection of the exhaust stack for each control device has been performed as required in Sec. 63.848(g), including the results of each inspection;
viii) Records documenting the corrective actions taken when the limit(s) for an operating parameter established under Sec. 63.847(h) were exceeded, or when visible emissions indicating abnormal operation were observed from a control device stack during a daily inspection required under Sec. 63.848(g);
ix) Records documenting the portion of TF that is measured as particulate matter and the portion that is measured as gaseous when the particulate and gaseous fractions are quantified separately using an approved test method; and
x) Records documenting the actions taken during a startup, shutdown, or a malfunction.

6. Specific Reporting Requirements:

Any exceedance over the monthly usage rates shall be reported in writing to the Division, no later than 30 days after the exceedance. Following initial notification of an exceedance, monthly reports shall be submitted, by the fifteenth of each month, to the Division's Owensboro Regional Office. The company shall also certify to the Division, annually, that the specified records are being kept for these emission points and that any exceedances were reported.

Any exceedance of the sulfur content of the petroleum coke, coal tar pitch, and the sulfur content of the green anode mix shall be reported to the Division no later than 30 days after the exceedance. Exceedance of the VOM content of the coal tar pitch and/or coke, as well as any exceedance of the fuel usage rates shall be reported to the Division no later than 30 days after the exceedance.
Excursions of control equipment operating parameter as well as the introduction of green anodes and the amount of aluminum produced shall be reported to the Division. If more than two excursions and/or exceedance occur in any rolling six months, the owner or operator shall submit to the Division's Owensboro Regional Office a corrective action plan for the Division's approval on form DEP7007BB, no later than 30 days from the second exceedance.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Any exceedance over the monthly particulate emission limits or opacity limits shall be reported in writing to the Division, no later than 30 days after the exceedance. Following initial notification of an exceedance monthly reports shall be submitted, by the fifteenth of each month, to the Division's Owensboro Regional Office. The reports shall contain individual emission units' monthly and annual PM/PM_{10} emission estimates and/or opacity readings and a summation of the emission units' annual PM/PM_{10} emissions. Monthly reports shall be submitted until there has been 12 consecutive months without any exceedance. The company shall also certify to the Division, annually, that the specified records are being kept for these emission points and that any exceedances were reported.

The owner or operator may report required information on paper, on a labeled computer disc or CD using commonly available and compatible computer software.

a) Performance test reports: The owner or operator shall submit a summary of all subsequent performance tests on an annual basis except as required below in excess emission report(h) and in 63.850(d).

b) The owner or operator must maintain a site specific test plan that must include procedures for conducting performance tests required for emission monitoring. In addition to the information required by 63.7, the plan shall include the following information:

1) Procedures to ensure a minimum of three runs are performed annually for the primary control system for each source;

2) A test summary, the test schedule, data quality objectives (the pretest expectations of precision, accuracy, and completeness of data), and both an internal and external quality assurance (QA) program. The external and internal QA programs shall include, at a minimum the information specified in 63.7 (2)(ii) and (iii), respectively.

c) Sixty days prior to the compliance date the owner or operator shall submit the recommended accuracy requirements for all monitoring devices for DAQ's for review and approval.

d) Sixty days prior to the compliance date the owner or operator shall submit a description of the parameter(s) to be monitored, the operating limits, and the monitoring frequency to ensure that the each control device is being properly operated and maintained. And explanation of the criteria used to select each of the above, including how each relates to emission control shall be included.

e) The owner or operator shall submit a one-time notification of the initial performance test and the initial compliance status.

f) The owner or operator shall submit semi-annual reports that confirm that actions taken during the relevant reporting period during startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown, and malfunction plan. If action taken during the startup, shutdown, or malfunction is not consistent with the affected source's plan, the owner or operator shall record the action taken for the event and shall report such actions within two working days after commencing action inconsistent with the plan followed by a letter within 7 working days after the end of the event, in accordance with 63.10(d)(5) (unless alternative reporting arrangement have been in advance). Additionally, the owner or operator shall submit for the Division's review and approval any modifications to the affected source's startup, shutdown, and malfunction plan.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

g) As required by Sec. 63.10(e)(3), the owner or operator shall submit an excess emissions report (or a summary report) if measured emissions are in excess of the applicable standard. The report shall contain the information specified in Sec. 63.10(e)(3)(v) and be submitted semi-annually unless quarterly reports are required as a result of excess emissions.

7. Specific Control Equipment Operating Conditions:

The owner or operator shall install, maintain, and operate dry alumina scrubber system, on the carbon bake furnaces, in accordance with the manufacturer's guidelines. Dry alumina scrubber systems operating parameters, such as pressure drop, alumina flow rates, shall be adhered to at all times.

The dry alumina scrubber system shall operate within the parameters established in the Testing Requirement section and in 63.847 (h) and (f).

Pursuant to 40 CFR 63 §63.848(k), the owner or operator shall certify that all required monitoring devices meet the accuracy requirements. Calibration (records) must be kept and performed in accordance with the manufacturer's instructions.

8. Alternate Operating Scenarios:

Carbon Bake Ovens #1 and #2 are nearing the end of their operational life and will have to be rebuilt during the term of this permit. The rebuild will replace the refractory in the tub, outside walls and gas flues. An application for permit revision must be obtained for this work.

9. Compliance Schedule

None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Green Carbon Anode Production and Handling
Emission Group: Dry Circuit Table 5.0

Emission Point	Construction/ Modification Date	Description	Type of Control	Emission Limitations	Operation Limits / Month
8 [07(N80-08(01))]	1996	Green Carbon Roll Crusher	Baghouse*	26.64 lb/hr	15,512/tons
8 [07(N81-08(02))]	1996	Green Carbon Bucket Elevator	*	26.64 lb/hr	15,512/tons
8 [06(N61-07)]	1996	Transfer Tower	*	15.09 lb/hr	15,512/tons
8 [06(N62-07)]	1996	Carbon Conveyor	*	15.09 lb/hr	15,512/tons
7 [06(N63-07)]	1996	Fines Collector	*	15.09 lb/hr	15,512/tons
8 [06(N64-07)]	1996	Fraction Bins and Feeder	*		15,512/tons
8 [06(N65-*)]	1996	Dust from Internal Conveyors	*		15,512/tons
8 [06(N66-*)]	1996	Dust from Internal Conveyors	*		15,512/tons
8 [06(N67-07)]	1996	Double-roll Crushing	*	15.09 lb/hr	15,512/tons
8 [06(N68-*)]	1996	Conveyor Vent	*		15,512/tons
8 [06(N69-*)]	1996	Green Carbon Conveyor to Carbon Bake Cranes (multi-purpose conveyor)	*		15,512/tons
7 [06(N60)]	1996	10 ton Ballmill	Baghouse	15.09 lb/hr	7300 tons of coke/pitch
40 [32(N320) 40]	1996	15 ton Ballmill	Baghouse	19.41 lb/hr	10950 tons of coke/pitch

***All sources to a common Baghouse**

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Group: Hot Circuit Table 6.0

Emission Point	Construction/ modification date	Description	Type of Control	Emission Limitations	Operation Limits / Month
34 [16(N160)]	1996	Anode Vibrator Press	Dry Coke Scrubber		N/A
34 [16(N161)]	1996	Green Anode Conveying			N/A
34 [07(N83)]	1996	Hot Anode Paste Conveyor	Dry Coke Scrubber		N/A
34 [07(N84)]	1996	Green Mix Reject Piles	Dry Coke Scrubber		N/A
34 [07(N85-08(03))]	1996	Green Carbon Handling	Dry Coke Scrubber		18250 tons coke/pitch
08(N93)	1996	Pitch day tank	Carbon Absorber		2583 tons/month pitch

Description

Raw material: coke, pitch, and recycled anodes and butts.
Maximum monthly rated capacity of green anodes: 18,250 tons (self-imposed).
Maximum yearly rated capacity of green anodes: 219,000 (self-imposed).
Installation date: 1996

APPLICABLE REGULATIONS:

Regulation 40 CFR Part 63 Subpart LL, National Emission Standards for Hazardous Air Pollutants for Primary Aluminum Reduction Plants.
401 KAR 59:010, New process operations

1. **Operating Limitations:**
   Pursuant to 40 CFR 63 §63.843(b), the owner or operator shall install, operate, and maintain equipment to capture and control polycyclic organic matter (POM) emissions. The permittee must operate a dry coke scrubber for the hot circuit only.

2. **Emission Limitations:**
   Pursuant to 401 KAR 59:010:
   a) Visible emissions shall not equal or exceed 20 percent opacity, as determined with Reference Method 9 (if required), Appendix A, 40 CFR 60.
   b) Hourly particulate emissions as measured by Reference Method 5, Appendix

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

A, 40 CFR 60 averaged over the minimum specified time, shall not exceed the 26.64 lb/hr.

3. Testing Requirements:

Pursuant to 40 CFR 63 §63.847(f), initial compliance with the emission standards for these emission points shall be demonstrated through site inspections and review of site records unless testing is required.

4. Specific Monitoring Requirements:

Pursuant to 401 KAR 59:010:

a) To provide reasonable assurance that the visible emission limitations are being met the permittee shall:
   i) Perform quarterly, or more frequently if requested by the Division, opacity reading from each stack or vent using Reference Method 9. Opacity readings shall be conducted while the emission units are in operation.
   ii) Perform weekly qualitative visual observation of the opacity of emissions from each stack/vent and maintain a log of the observation. The log shall note:
      1) whether any air emissions (except for water vapor) were visible from the vent/stack,
      2) all emission points from which visible emissions occurred, and
      3) whether the visible emissions were normal for the process
   iii) determine the opacity of emissions by Reference Method 9 if abnormal visible emissions from any stack/vent are observed.

b) Compliance with the listed operational limits provides reasonable assurance that the particulate matter emission limitations (PM/PM_{10}) are being met. The permittee shall monitor the amount and type of throughputs added to each emission unit during a calendar month. Additionally, the owner or operator shall monitor once a month the air flow rate and pressure drop across the baghouses while the emission unit is operating. Excursions from the control equipment's operating ranges shall be corrected within 24 hours; additional time may be granted for just cause.

Pursuant to 40 CFR 63 Subpart LL:

a) The owner or operator shall maintain a continuous parameter monitoring system for each emission control device. A description of the parameters to be monitored, the operating limits, and the monitoring frequency to ensure that the control devices are being properly operated and maintained, and an explanation of the criteria used for their selection and how they relate to the emission control shall be submitted. Unless prior written approval by DAQ for alternative control device operating parameters has been granted, devices for the measurement of coke flow and air flow shall be installed for the dry coke scrubbers.

b) The owner or operator shall visually inspect the exhaust stack(s) of each control device on a daily basis for evidence of any visible emissions indicating abnormal operation.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c) If a monitoring device for a primary control device measures an operating parameter outside the limit(s) required to be established pursuant to §63.847(h), or if visible emissions indicating abnormal operation are observed from the exhaust stack of a control device during a daily inspection, the owner or operator shall initiate the corrective action procedures identified in the startup, shutdown, and malfunction plan within 1 hour. Failure to initiate the corrective action procedures within 1 hour or to take the necessary corrective actions to remedy the problem is a violation.

d) If the limit for a given operating parameter associated with monitoring a specific control device is exceeded six times in any semi-annual reporting period, then any subsequent exceedance in that reporting period is a violation. For the purpose of determining the number of exceedances, no more than one exceedance shall be attributed in any given 24-hour period.

e) The owner or operator shall monitor the actions taken during any startup, shutdown, and malfunction event.

5. Specific Record Keeping Requirements:

The permittee shall maintain records of the daily qualitative visual observation, quarterly Reference Method 9 opacity readings, control equipment excursions from their operating ranges, and the appropriate throughputs for the units in the above table.

The owner or operator shall maintain records of all information (including all reports and notifications) required by Section 63.10(b) and by 40 CFR 63 Subpart LL. In addition to the general records required by Sec. 63.10(b), the owner or operator shall maintain records of the following information:

i) A copy of the Startup, shutdown, and malfunction plan;
ii) Daily records of the control equipment operating parameters;
iii) Design information of the capture system(s);
iv) Records, such as a checklist or the equivalent, demonstrating that the daily visual inspection of the exhaust stack for each control device has performed, including the results of each inspection;
v) Records documenting the corrective actions taken when the limits for an operating parameter established under 63.847(h) were exceeded, or when visible emission indication abnormal operation were observed from a control device stack; and
vi) Records documenting the actions taken during a startup, shutdown, or a malfunction.

6. Specific Reporting Requirements:

The owner or operator may report required information on paper, on a labeled computer disc or CD using commonly available and compatible computer software. The owner or operator shall submit*:*

Semi-annual reports that confirm that actions taken during the relevant reporting period during startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown, and malfunction plan. If action taken during the startup, shutdown, or malfunction is not consistent with the affected source's plan, the owner or operator shall record the action taken for the event and shall report such actions within two working days after commencing

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

action inconsistent with the plan followed by a letter within 7 working days after the end of the event, in accordance with 63.10(d)(5) (unless alternative reporting arrangement have been in advance). Additionally, the owner or operator shall submit for the Division's review and approval any modifications to the affected source's startup, shutdown, and malfunction plan.

Any exceedance over the opacity or operational (throughput) limits shall be reported to the Division within thirty days after the exceedance. Following initial notification of a throughput exceedance monthly reports shall be submitted, by the fifteenth of each month, to the Division's Owensboro Regional Office. The reports shall contain individual emission units' monthly and annual PM/PM_{10} emission estimates and a summation of the emission units' annual PM/PM_{10} emissions. Monthly reports shall be submitted until there has been 12 consecutive months without any exceedance. The company shall also certify to the Division, annually, that a daily visible emission survey is conducted and the specified records are being kept for these emission points. If more than three visible emission exceedances occur in any rolling six months, the owner or operator shall submit to the Division's Owensboro Regional Office a corrective action plan for the Division's approval on form DEP7007BB, no later than 30 days from the third exceedance.

7. Specific Control Equipment Operating Conditions:

Pursuant to 40 CFR 63 §63.843(b),

a) The emission capture system shall be installed and operated to meet the generally accepted engineering standards for minimum exhaust rates as published in Chapter 3 and Chapter 5 of "Industrial Ventilation: A Manual of Recommended Practice," American Conference of Governmental Industrial Hygienists, 22nd edition, 1995; and

b) Captured emissions of polycyclic organic matter (POM) shall be routed through a closed system to a dry coke scrubber.

8. Compliance Certification Requirements

Pursuant to 40 CFR 63 §63.848(k), the owner or operator shall certify that the required monitoring system is being maintained per the manufacturer's instructions.

9. Compliance Schedule:

None

10. Alternate Operating Scenarios:

None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

21(N214-46)
Description: Molten metal in-line degassing unit with a capacity of 40,000 pounds per hour with a scrubber for control.
Construction commenced: March 2001

APPLICABLE REGULATIONS:
401 Kar 59:010, New process operations.
40 CFR 63 Subpart RRR, National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production.

1. Operating Limitations:
The permittee shall provide and maintain easily visible labels posted at the in-line fluxer that identifies the applicable emission limits and the means of compliance including the listed items in 63.1506(b)(1)-(3). None

2. Emission Limitations:
Pursuant to Subpart RRR:
a) The HCL emission shall not exceed 0.04 lb/ton of feed
b) The particulate (PM) emissions shall not exceed 0.01 lb/ton of feed.

Pursuant to 401 KAR 59:010, visible emissions shall not equal or exceed 20 percent opacity

The Division for Air Quality has determined that this facility's potential to emit any air pollutant is less than 15 tons per year. Therefore, although the permit is conditioned to allow emissions in excess of 15 tons per year pursuant to federally enforceable regulation 401 KAR 59:010, New process operations, emissions equal to or in excess of 15 tons per year are not possible.

Compliance Demonstration Method:
To determine compliance with the HCL and PM emissions the following equation will be used:

$$E= (C*Q*K_1)/ P$$

Where E = Emission rate of PM or HCl (lb/ton)
C = Concentration of PM or HCl (gr/dscf)
Q = Volumetric flow rate of exhaust gases(dscf/hr)
K_1 = Conversion factor, 1 lb/7,000 gr; and
P = Production rate, ton/hr

3. Testing Requirements:
Testing must be conducted in concurrence with 40 CFR 63.1511.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

The permittee shall monitor the weight of feed or charge and develop an operation, malfunction and maintenance plan and weekly observations of visible emissions from the welding operation shall be made. Labels shall be inspected once per month to ensure that they are intact and legible. The total reactive flux injected must be monitored for each operating cycle as specified in 63.1510(j).

5. Specific Recordkeeping Requirements:

The permittee shall keep records of the reactive flux used, time fluxed and type of flux (as per 63.1517(a)(5), and the amount of process weight processed by the emission unit.

A log shall be kept of all visible emissions observations. Notification in the weekly log shall be made of, but not limited to the following:

a. Whether any air emissions (except for water vapor) were visible from the plant.
b. Whether the visible emissions were normal for the process.
c. The cause of any abnormal emissions and any corrective actions taken.

6. Specific Reporting Requirements:

The permittee shall report semi-annually to the Division, any exceedance of the operating and emission limitations. Annual compliance certifications shall be sent to the Owensboro Regional Office.

7. Specific Control Equipment Operating Conditions:

The scrubber shall be maintained and operated according to manufacturer's specifications.

8. Alternate Operating Scenarios:

Operate the furnace without inline degassing unit.

Operate without scrubber, if demonstrated, by testing that emission limits can be met without control.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Group 5
21(N210, N211,N212)
Description: Aluminum casting furnaces 1 and 3l
Construction modification: 1996
22(N220)
Description: Aluminum casting furnace 4
Construction modification: 1996

APPLICABLE REGULATIONS:
401 KAR 59:010, New process operations.
40 CFR 63 Subpart RRR, National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production becomes applicable on March 24, 2003.

1. Operating Limitations:

The permittee shall comply with all applicable provisions in 40 CFR 63.1506.
The combined aluminum production shall not exceed 23,167 tons per month.
The combined natural gas usage shall not exceed 185.3 mmcf/year.

2. Emission Limitations:

Pursuant to 401 KAR 59:010:

a) Visible emissions shall not equal or exceed 20 percent opacity, as determined with Reference Method 9, Appendix A, 40 CFR 60.
b) Hourly particulate emissions as measured by Reference Method 5, Appendix A, 40 CFR 60 averaged over the minimum specified time, shall not exceed an emission rate of 30.89 lb/hr PM/PM_{10}.

Pursuant to Subpart RRR (If reactive flux is used):

a) The HCL emission shall not exceed 0.40 lb/ton of feed/charge.
b) The particulate (PM) emissions shall not exceed 0.4 lb/ton of feed/charge.
c) Dioxans and Furans shall not exceed 0.00021 gr of D/F TEQ per ton of feed/charge.

Pursuant to Subpart RRR (If no reactive flux is used):

a) Follow work practices in OM&M plan.
b) Record charge materials only.

The Division for Air Quality has determined that this facility's potential to emit any air pollutant is less than 15 tons per year. Therefore, although the permit is conditioned to allow emissions in excess of 15 tons per year pursuant to federally enforceable regulation 401 KAR 59:010, New process operations, emissions equal to or in excess of 15 tons per year are not possible.

Compliance Demonstration Method:

To determine compliance with the HCL and PM emissions the following equation will be used:

$$E= (C*Q*K_1)/ P$$

Where E = Emission rate of PM, HC, or D/F, lb/ton of feed.
C = Concentration of PM, HCl, or D/F (gr/dscf).
Q = Volumetric flow rate of exhaust gases (dscf/hr).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

K_1 = Conversion factor, 1 lb/7,000 gr; and
P = Production rate, ton/hr.

3. Testing Requirements:

Testing must be conducted in concurrence with 40 CFR 63.1511 and 63.1512 for group 1 uncontrolled furnaces (if reactive flux is used). No testing required if no reactive flux is used.

4. Specific Monitoring Requirements:

a) To provide reasonable assurance that the visible emission limitations are being met the permittee shall:
   i) Perform quarterly, or more frequently if requested by the Division, opacity reading from each stack or vent using Reference Method 9. Opacity readings shall be conducted while the emission units are in operation (if reactive flux used).
   ii) Perform weekly qualitative visual observation of the opacity of emissions from each stack/vent and maintain a log of the observation. The log shall note:
      1) Whether any air emissions (except for water vapor) were visible from the vent/stack,
      2) All emission points from which visible emissions occurred, and
      3) Whether the visible emissions were normal for the process.
   iii) Determine the opacity of emissions by Reference Method 9 if abnormal visible emissions from any stack/vent are observed.

Compliance with the listed operation limits provides reasonable assurance that the particulate matter emission limitations (PM/PM_{10}) are being met. The permittee shall monitor the amount and type of throughputs (specified in the table under operational limits) added to each emission unit during a calendar month.

The permittee must comply with the appropriate monitoring in 40 CFR 63.1510.

5. Specific Recordkeeping Requirements:

The permittee shall comply with the appropriate sections in 63.1517.

Records shall be maintained of the weekly qualitative visual observation, quarterly Reference Method 9 opacity readings, and the appropriate throughputs for the units in the above table. Emission units that have a combined process throughput rate limit shall be added together.

6. Specific Reporting Requirements:

The permittee shall comply with the relevant sections of 63.1514.
The permittee shall report semi-annually to the Division, any exceedance of the operating and emission limitations. Annual compliance certifications shall be sent to the Owensboro Regional Office. Any exceedance over the opacity or operational (throughput) limits shall be reported to the Division within thirty days after the exceedance. Following initial notification of a throughput exceedance monthly reports shall be submitted, by the fifteenth of each month, to the Division's Owensboro Regional Office. The reports shall contain individual emission units' monthly and annual PM/PM_{10} emission estimates and a summation of the emission units' annual PM/PM_{10} emissions. Monthly reports shall be submitted until there has been 12 consecutive months without any exceedance.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

The company shall also certify to the Division, annually, that a weekly visible emission survey is conducted and the specified records are being kept for these emission points. If more than two visible emission exceedances occur in any rolling six months, the owner or operator shall submit to the Division's Owensboro Regional Office a corrective action plan for the Division's approval on form DEP7007BB, no later than 30 days from the second exceedance.

7. Specific Control Equipment Operating Conditions:
None

8. Alternate Operating Scenarios:
In the place of the natural gas, the permittee shall not use more than 108 gallons per hour and 939752 gallons per year of fuel oil.

Permittee can operate furnaces as either Group 1 uncontrolled or Group 2 by changing fluxing practice.

9. **Compliance Schedule:**
These units shall comply with 40 CFR 63 Subpart RRR no later than March 24, 2003.

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

	Description	Generally Applicable Regulation
1.	Kerosene Tank 1000 Gallon	NA
2.	Hot Oil Tank 5280 Gallons	NA
3.	Propane Fill Station	401 KAR 63:010
4.	Fuel Oil Tank 150000 Gallon	NA
5.	Diesel Tank 500 Gallon	NA
6.	Diesel Tank 300 Gallon	NA
7.	Used Oil Tank 2000 Gallon	NA
8.	Substation Oil Tanks 10000 Gallon	NA
9.	Mobile Oil Tank 100 Gallon	NA
10.	Gasoline AST 15000 Gallon	NA
11.	Diesel AST 15000 Gallon	NA
12.	Garage Waste Oil Tank 470 Gallon	NA
13.	Graphite Dip Tank (8 tons/year)	401 KAR 59:010
14.	Parts Washers 50 200 gallons (5)	401 KAR 63:020
15.	Plant Welding (30000 lb electrodes/yr max)	401 KAR 59:010
16.	Pot Relining Building	401 KAR 59:010
17.	Dross Storage/Dross Press	401 KAR 63:010
18.	Cast house DC Pit Cooling tower	NA
19.	D/C Casting Pit	NA
20.	Cast house Inline Caster	NA

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

	Description	Generally Applicable Regulation
21.	Sow Casting Operations	401 KAR 59:010
22.	Compressor Building Cooling tower	NA
23.	Compressor Building Cooling tower	NA
24.	Compressor Building Cooling tower	NA
25.	Green Carbon Cooling Tower	NA
26.	Rodding for Lindberg Cooling Tower	NA
27.	Rodding Cooling Tower	NA
28.	Bake A/C Cooling Tower	NA
29.	Rectifier Yard Line 1 Cooling Tower	NA
30.	Rectifier Yard Line 1 Cooling Tower	NA
31.	Rectifier Yard Line 2 Cooling Tower	NA
32.	Rectifier Yard Line 2 Cooling Tower	NA
33.	Rectifier Yard Line 3 Cooling Tower	NA
34.	Rectifier Yard Line 3 Cooling Tower	NA
35.	Rectifier Yard Line 4 Cooling Tower	NA
36.	Rectifier Yard Line 4 Cooling Tower	NA
37.	Rectifier Yard Line 5 Cooling Tower	NA
38.	Rectifier Yard Line 5 Cooling Tower	NA

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the material incorporated by reference in 401 KAR 52:020, Section 10; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

2. All compliance tests specified in this permit shall be conducted in accordance with the following requirements unless specified differently in this permit or in the appropriate regulation.
   Compliance/performance tests:
   a) Performance tests shall be performed by the reference methods specified in Regulation 401 KAR 50:015, Section 1 and the averaging time shall be consistent with the requirements specified in this permit.
   b) The permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the Division's Frankfort office at least thirty (30) days prior to the date of the required performance tests. The Division shall be notified of the actual test date at least ten (10) days prior to the tests and given the opportunity to attend/observe the performance test.
   c) During the test the appropriate process operations that relate to the formulation of emissions shall be recorded and correlated to the measured emissions.
   d) Unless specified elsewhere particulate performance may be used to demonstrate compliance with the PM_{10} emission limitations if all particulate emissions are assumed to be PM_{10}.
   e) If the performance tests and/or compliance demonstrations are not conducted at the affected facility's maximum capacity, the affected facility shall not be operated at capacity higher than 110% of the capacity achieved during the compliance demonstration. To demonstrate compliance at a higher capacity, the performance tests shall be repeated within 60 days after achieving the maximum production rates at which the affected facilities/emission units will be operated.
   f) All performance tests shall be conducted under conditions that are representatives of the emission units normal operation.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

2. Pursuant to 40 CFR 63.6 (e)(1):
   i) At all times, including periods of startup, shutdown and malfunction owners and operators shall maintain and operate any affected facility sources to a standard promulgated pursuant to 112(d), including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emission at least to the levels required by the relevant standards.
   ii) Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the required startup, shutdown, and malfunction plan.
   iii) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan), review of operation and maintenance records, and inspection of the source.
   (iv) Startup, shutdown, and malfunction plan and reports. The owner or operator shall develop, by the compliance date, and implement a written startup, shutdown, and malfunction plan as described below and in Sec. 63.6(e)(3) that contains specific procedures to be followed for operating the source and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and control systems used to comply with the standard. DAQ may review the plan upon request. In addition to the information required in Sec. 63.6(e)(3), the plan shall include:
      (1) Procedures, including corrective actions, to be followed if a monitoring device measures an operating parameter outside the limit(s) established under the testing requirement section (Sec. 63.847(h)), or if visible emissions from an exhaust stack indicating abnormal operation of a control device are observed by the owner or operator during the daily inspection (required in Sec. 63.848(g)); and
      (2) The owner or operator shall also keep records of each event as required by Sec. 63.10(b) and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in Sec. 63.6(e)(3)(iv).
      (3) The plan shall identify all routine or otherwise predictable continuous monitoring system (CMS) malfunctions.
      (4) The owner or operator shall keep records during and startup, shutdown and malfunction events that confirms conformance that the plan was followed. Records may in the form of a “checklist”.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENT (CONTINUED)

(5) The owner or operator shall keep records in a form suitable and readily available for expeditions review and inspection.

(6) The occurrence, and duration / taken during each event shall be recorded. Records must be kept of any action taken during the event (including corrective action) that is different that the action specified in the startup, shutdown, and malfunction plan.

(7) Each period which a CMS is malfunction or inoperative (including out of-control periods shall be recorded.

(8) Of all required measurements needed to demonstrate compliance (including, but not limited to, 15 minute average of CMS data, raw material, performance testing measurements and performance evaluations measures, etc.) that support data that the sources is required to report.

(9) All measurements necessary to determine the conditions of performance test and performance evaluations.

(10) All results of performance test, CMS performance evaluations, opacity and visual observations;

(11) Shall revise the plant within 45 days after an event that the plan did not (or inadequately) address to include detailed procedures for operation and maintaining during a similar event and the corrective actions to be taken.

(12) All calibration checks, adjustments and maintenance performed on CMSs.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

1. When continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
   a. Date, place as defined in this permit, and time of sampling or measurements.
   b. Analyses performance dates;
   c. Company or entity that performed analyses;
   d. Analytical techniques or methods used;
   e. Analyses results; and
   f. Operating conditions during time of sampling or measurement.
   [Material incorporated by reference by 401 KAR 52:020, Section 1b (IV)1]

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality. [Material incorporated by reference by 401 KAR 52:020, Sections 1b(IV) 2 and 1a(8)]

3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
   a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
   b. To access and copy any records required by the permit:
   c. Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit. Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
   d. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.
   e. Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation.
   [Material incorporated by reference by 401 KAR 52:020, Section 1b (V)1.]

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due prior to January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. All deviations from permit requirements shall be clearly identified in the reports.

7. In accordance with the provisions of 401 KAR 50:055, Section 1, the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
   a. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
   b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards notification shall be made as promptly as possible by telephone (or other electronic media) and shall cause written notice upon request.

8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above) to the Regional Office listed on the front of this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report required by Section F.6. [Material incorporated by reference by 401 KAR 52:020, Section 1b V 3, 4.]

9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U. S. EPA in accordance with the following requirements:
   a. Identification of the term or condition;
   b. Compliance status of each term or condition of the permit;
   c. Whether compliance was continuous or intermittent;
   d. The method used for determining the compliance status for the source, currently and over the reporting period, and
   e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

Division for Air Quality
Owensboro Regional Office
3032 Alvey Park Dr., Ste 700
Owensboro, KY 42303

U.S. EPA Region 4
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.

11. Pursuant to Section VII.3 of the policy manual of the Division for Air Quality as referenced in 401 KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the division by the source or its representative within forty-five days after the completion of the fieldwork.

SECTION G - GENERAL PROVISIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 and of the Clean Air Act and is grounds for enforcement action including termination, revocation and reissuance, revision or denial of a permit. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 3]

2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 6]

3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
   a. If additional requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
   b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
   c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;
   d. If any additional applicable requirements of the Acid Rain Program become applicable to the source. **[Acid Rain sources only**]

   Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish information upon requested by the cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or compliance with the permit. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 7, 8]

5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority. [Material incorporated by reference by 401 KAR 52:020, Section 7(1)]

SECTION G - GENERAL PROVISIONS (CONTINUED)

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 14]

7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 4]

8. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens of the United States. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 15)b]

9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6). [Material incorporated by reference by 401 KAR 52:020, Section 1a, 10]

10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 52:020, Section 11(3)(b)]

11. This permit does not convey property rights or exclusive privileges. [Material incorporated by reference by 401 KAR 52:020, Section 1 A, 9]

12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.

13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry. [401 KAR 52:020, Section 11(3)(d)].

14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders. [401 KAR 52:020, Section 11(3)(a)]

15. Permit Shield - A permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of a permit shall be considered compliance with:
    (a) Applicable requirements that are included and specifically identified in the permit and
    (b) Non-applicable requirements expressly identified in this permit.

16. All previously issued construction and operating permits are hereby subsumed into this permit.

SECTION G - GENERAL PROVISIONS (CONTINUED)

(b) Permit Expiration and Reapplication Requirements

1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the division. [401 KAR 52:020, Section 12]

2. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the division after the completeness determination has been made on any application, by whatever deadline the division sets. [401 KAR 52:030 Section 8(2)]

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).

2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements

1. Construction of process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.

2. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the division's Frankfort Central Office, notification of the following:
   a. The date when construction commenced.
   b. The date of start-up of the affected facilities listed in this permit.
   c. The date when the maximum production rate specified in the permit application was achieved.

SECTION G - GENERAL PROVISIONS (CONTINUED)

3. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the cabinet may extend these time periods if the source shows good cause.

4. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the proposed permit. Operational or final permit approval is not granted by this permit until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section I of this permit or order of the cabinet.

5. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. These performance tests must also be conducted in accordance with General Provisions G(d)6 of this permit and the permittee must furnish to the Division for Air Quality's Frankfort Central Office a written report of the results of such performance test**.**

6. Pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1.(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the division shall be notified of the actual test date at least ten (10) days prior to the test.

(e) Acid Rain Program Requirements

If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

(f) Emergency Provisions

1. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:

SECTION G - GENERAL PROVISIONS (CONTINUED)

a. An emergency occurred and the permittee can identify the cause of the emergency;
b. The permitted facility was at the time being properly operated;
c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
d. The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within ten (10) working days of the time when emission limitations were exceeded due to the emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
e. This requirement does not relieve the source from other local, state or federal notification requirements.

2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement. [401 KAR 52:020, Section 24(3)]

3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 52:020, Section 24(2)]

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center
P.O. Box 3346
Merrifield, VA, 22116-3346

2. If requested, submit additional relevant information to the division or the U.S. EPA.

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
   a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
   b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
   c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
   d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the record keeping requirements pursuant to 40 CFR 82.166.

SECTION G - GENERAL PROVISIONS (CONTINUED)

e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.

f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

SECTION H - ALTERNATE OPERATING SCENARIOS

Not Applicable

SECTION I - COMPLIANCE SCHEDULE

Not Applicable

SECTION J - ACID RAIN

Not Applicable